

## PATENT ABSTRACTS OF JAPAN

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(71)Applicant : SONY CORP

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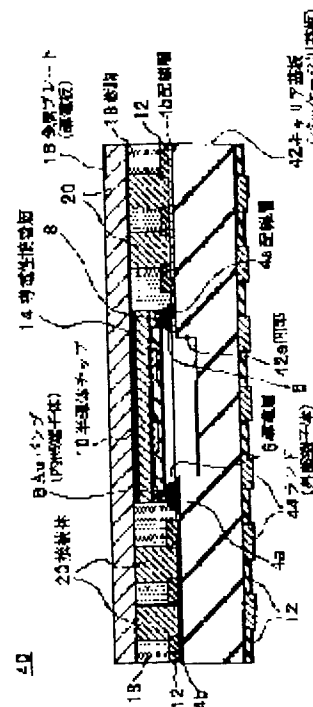
(72)Inventor : OKUHORA AKIHIKO

(54) SEMICONDUCTOR DEVICE, ITS MANUFACTURE, AND METHOD FOR MOUNTING PARTS

(57)Abstract:

PROBLEM TO BE SOLVED: To inexpensively perform flip-chip mounting in such a way that the parasitic inductance, etc., can become smaller and the heat radiation from the parts and the grounding of the parts can be made easily, and then, the characteristics and reliability of the parts can be maintained highly.

SOLUTION: A semiconductor device has a substrate 42 for package carrying wiring layers 4a and 4b on one main surface. a semiconductor chip 10 which is electrically connected to the wiring layers 4a and 4b through an internal terminal 8 and the element forming surface of which is faced to the substrate 42 through a gap, and a conductive plate 16 which is connected to both surfaces of the chip 10 including the element forming surface on one side through a conductive connecting layer 14 and faced to the substrate 42. The chip 10 is encapsulated in a resin 18 formed in the revolving direction in the space between the substrate 42 and conductive plate 16. On the main surface of the substrate 42, a recess 42a which extends the space between the chip 10 and substrate 42 in the thickness direction of the substrate 42 is provided.



## LEGAL STATUS

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